Outline of Some Points

To: Washington State's Board of Health

30 Oct 04

From W.O.Robertson M.D. Wash Poison Center and U of W

Subj: This year's lead controversy

1. In 1993, EPA reduced its worry level re: lead in drinking water from 50 to 15 and 20 ppb – not based on correlations with lead levels in humans.
2. Aspen CO citizens' '91 fiasco pleading for lead clean-up when their kids were some 60% lower than blood lead levels from the rest of the state.
3. CDC's spring 2004 note that among 208 adults and kids living in DC homes with tapwater levels above 300!!, not a one had an elevated blood lead.
4. Current "no threshold for lead" hypothesis would be unique among all chemicals in past 300+ years after Paraselsus said "The dose makes the poison"
5. In the 1960's, Seattle's kids averaged blood leads at 33; in the 70's it fell to 22 and now it is just about 1 – thanks to getting rid of tetra-ethyl lead – which won out over ethyl alcohol as the preferred anti-knock agent in the mid 1920's because ethyl alcohol had a "bad image" from "Prohibition"
6. In view of #5, were lead responsible for juvenile delinquency and ADHD most would expect both conditions to have almost disappeared – no such luck
7. Today's science would insist that the "worst schools" would also see higher blood lead levels in their kids that the "good schools" when it comes to lead. Unfortunately, no efforts have been carried out to find out – but note that the "worst schools" have the best WASL scores - for what that is worth!!

8. Personally, I'm absolutely convinced that our $'s would be better spent with other school programs than one aimed at drinking water 'non-problems'!
9. Let "science" settle the argument - as opposed to spokesmen for either the "Lead industry" or the "Lead Abatement Industry". Both industries have the best of PR staffs and backers with strong convictions.
10. Except for a box full of lead soldiers from years gone by and one or two fishing plugs I'm unaware of having any financial conflicts of interests with either side in the long-lived dispute – and I've served as an "expert" for both parties in years gone by.

Bill Robertson

ABSTRACT

#1

2004

Lead Problems In Washington State?

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Background: Nationally, lead is still revered as an enormous public health menace. While clearly a valid concern half a century ago, is it still so today? Our federal government obviously thinks so since it mandates "universal blood-lead testing" of all toddlers - with the loss of federal-matching Medicaid $'s for failure to comply. Our Pacific Northwest states have repeatedly contested the need of such action - with one labeling such testing as "indisputable child abuse"! We review our rationale.

Method: Data stem from A) Washington's Lead Surveillance Program's records of all blood-lead-determinations done on any citizen since 1993 and its careful analysis of all results from children; B) Washington's Department of Labor and Industries which analyzes all adult lead levels; C) all "CHARS" hospital discharge summaries re: lead poisoning over the past decade; and D) Washington Poison Center's lead problems.

Results: From '93 thru '95, only 3.5% of 7,942 high-risk toddlers' blood levels exceeded 10 micrograms/dL; for '96-'98's 12,715 toddlers, it was 2.1%; for '99-'01's 11,749 toddlers, it was 1.4% and for 2002's 7,336 toddlers, 1.2%. For adults, '93 thru '01 saw 94% of 43,432 reports <25 micrograms/dL; 2002, saw >98% <25. Hospital discharge data for the decade of the '90's confirmed not a single pediatric admission for lead! And, over that decade, our Poison Center only heard from the "worried well" and usually only after media scare tactics!

Discussion: Assuming total screening costs at $70 for each child tested, some $2.7 million was actually spent over 10 years to pin-point the 130 children with levels > 20 - only one of whom was subsequently chelated! The identification cost was $21,400 per case - which we are convinced could have been better spent elsewhere.

Conclusion: In the 60's, our toddlers' mean blood lead level was 34 micrograms/dL; in the 70's, it was 22. With the banishment of lead gasoline, 2003's mean level is <1. Rises in autism, juvenile delinquency and attention deficit disorders have been documented over the past years; rises in IQ have not been corroborated. Is universal lead screening warranted? We think not.

2004

WASHINGTON STATE'S "SUSPECTED" CHILDREN UNDER 19 SCREENING DATA

Years:	93-95	96-98	99-01	02-03
Number of Toddlers Screened	7,065	11,604	10,535	12,454
Number More Than 10μg/dL	257	243	152	158
Percentage More Than 10μg/dL	3.6%	2.1%	1.4%	1.5%

During approximately the same time period, some 46,291blood lead levels were measured in "Pb-exposed employees"; 1,092 (2.4%) were elevated - down from 25% in the early 80's!

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WASHINGTON STATE'S RANDOM TODDLER SURVEY

	1999
Number of Toddlers Screened	558
Number More Than 10 μg/dL	5
Percentage More Than 10 μg/dL	0.9%

NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEYS

NHANES Data

Children Aged 1-5 Years

DATA	Sample (n)	x Pb μg/dL	%>10μg/dL
76-80	2,372	16.1	88.2
88-91	2,234	3.7	8.7
91-94	4,724	2.7	4.4
94-99	--	2.1	--
99-00	--	--	2.2